Message

From: Johnson, Jason D (DEC) [Jason.Johnson@dec.ny.gov]
Sent: 7/13/2018 1:40:21 PM
To: Strynar, Mark [Strynar.Mark@epa.gov]
Subject: RE: PFAS work

Mark-

Thanks for the information, I look forward to hearing from you as you are available.

Have a great vacation!

Jason

Jason Johnson, PhD
Research Scientist 3, Bureau D (Special Projects)
Division of Environmental Remediation

New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7013
Desk: (518) 402-9676 | Cell: (518) 410-0726 | jason.johnson@dec.ny.gov

www.dec.ny.gov |

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov]
Sent: Friday, July 13, 2018 5:27 AM
To: Johnson, Jason D (DEC) <Jason.Johnson@dec.ny.gov>
Subject: RE: PFAS work

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hi Jason,

I did not pull out the associated method and field blanks that went along with each of these samples. I only looked at the samples themselves to look for the C3 acids. I will need to get back in the lab to check this, however I am out of the office until the 23rd of July Ex. 6 Personal Privacy (PP) I will do so when I return.

Mark

From: Johnson, Jason D (DEC) [mailto:Jason.Johnson@dec.ny.gov]
Sent: Thursday, July 12, 2018 3:10 PM
To: Strynar, Mark <Strynar.Mark@epa.gov>
Subject: RE: PFAS work

Hi Mark-

I appreciate your quick response and our discussion regarding short-chain PFAS. The references are especially helpful. One quick follow up question- when you say "in every instance I have seen the C3 acid is a

contaminant in the water samples I checked", does that mean the C3 is in each sample, at a value/peak which indicates the water source was contaminated by some exterior source and not by field or lab methods?

Jason

Jason Johnson, PhD
Research Scientist 3, Bureau D (Special Projects)
Division of Environmental Remediation

New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7013
Desk: (518) 402-9676 | Cell: (518) 410-0726 | jason.johnson@dec.ny.gov

www.dec.ny.gov |

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov]
Sent: Thursday, July 12, 2018 1:44 PM
To: Johnson, Jason D (DEC) <Jason.Johnson@dec.ny.gov>
Subject: PFAS work

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hi Jason,

Nice to chat with you today and answer any questions you had about PFAS. I think this will be an issue until I walk away from this job.

A couple of things I wanted to check on before I shared with you for sure. We generally monitor for C4-C10 carboxylic acids in my lab for what we call legacy PFAS. I do not have standards for any acids <C4 (PFBA). However our TOFMS system and our isolation SPE cartridge (Waters Oasis WAX) captures these analytes as well. We saw this also in our Strynar et al., 2015 and Sun et al., 2016 work (attached) for the analytes we found around a Chemours factory including some of the low molecular weight acids PFMOAA for instance. We also find the smaller acids are more difficult to remove by use of GAC.

In brief I went back and looked at a few older data files for the C3 and C2 (trifluoroacetic acid) acids :
My personal tap water
The Cape fear River
A water sample from NH
Some industrially contaminated water samples.

In every instance I have seen the C3 acid is a contaminant in the water samples I checked. It was sometimes a minor player (my home tap) and other times a major player (industrially contaminated water).

For the C2 acid (TFA) this is an issue as out TOFMS system uses TFA as a lock mass for calibration, thus I can't really see a discrete peak in most samples. However I did see it in some.

Many years ago Ellis and Mabury showed low molecular weight acids (including TFA) were thermolysis products of PTFE. See the attached paper.

Mark

Dr. Mark J. Strynar
Physical Scientist
US EPA
National Exposure Research Laboratory
919-541-3706
Strynar.mark@epa.gov